

**Commonwealth of Kentucky
Environmental and Public Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382**

**AIR QUALITY PERMIT
Issued under 401 KAR 52:040**

Permittee Name: Lite-N-Bolt Manufacturing Company

Mailing Address: 279 Kefauver Road
Millwood, Kentucky 42762

Source Name: Lite-N-Bolt Manufacturing Company

Mailing Address: Same as above

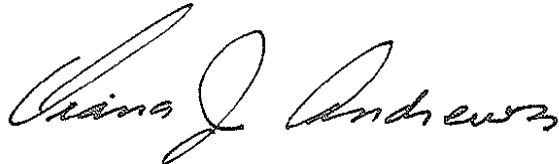
Source Location: 720 Bethel Cemetery Road
Leitchfield, KY 42754

Permit Number: S-06-243
Source A. I. #: 80907
Activity #: APE 20060001
Review Type: Construction / Operation
Source ID #: 21-085-00043

Regional Office: Owensboro Regional Office
3032 Alvey Park Drive, W., Suite 700
Owensboro, KY 42303-2191

County: Grayson

Application
Complete Date: September 15, 2006
Issuance Date: October 25, 2006
Revision Date:
Expiration Date: October 25, 2016



**John S. Lyons, Director
Division for Air Quality**

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction and operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:040, State-origin permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining other permits, licenses, or approvals that may be required by the Cabinet or other federal, state, or local agencies.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**01 (EP 01) Sweat Furnace****Description:**

This is a batch scrap aluminum melting operation.

This sweat furnace is designed with a residence time >0.8 second.

The total charge is 1.5 tons per hour, 8760 hours per year.

The furnace uses Natural gas as fuel and has a 5.0 mmBTU/hour capacity.

The construction commenced in 2006.

APPLICABLE REGULATIONS:

401 KAR 63:002, Section 3(1)(eee) incorporating by reference 40 CFR 63, subpart RRR, National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production.

401 KAR 59:010 – New process operation

1. Operating Limitations:

- a. Pursuant to 40 CFR 63.1506, the following additional operating requirements apply to D/F emissions:
 - i. 40 CFR 63.1506 (c) – Capture/collection systems.
 - ii. 40 CFR 63.1506 (p) – Corrective action.

2. Emission Limitations:

- a. Particulate emissions shall not exceed the limit calculated by the following formula [401 KAR 59:010, Section 3(2):

$$E = 3.59 P^{0.62}$$

P = Process weight in tons per hour

E = Emission rate in pounds per hour

- b. Visible emissions shall not exceed 20% opacity [401 KAR 59:010, Section 3(2)].
- c. Pursuant to §63.1505(f)(2): Dioxin/furan (D/F) emissions shall not exceed 0.8 nanogram (ng) of D/F TEQ per dscm (3.5×10^{-10} gr per dscf) at 11 percent Oxygen (O₂)

Compliance Demonstration Method:

- a. The process weight shall be determined in hourly tons by averaging the monthly process weight rate over monthly hours of operation. Particulate emission shall be calculated by the following equation:

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (continued)

$$E = P \times EF$$

P = Process weight in tons per hour

EF = the KYEIS particulate Emission Factor in lbs/ton of process weight.

E = Emission rate in pounds per hour

- b. For the compliance with above standard see the **Specific Monitoring, Recordkeeping, and Reporting Requirements** section.
- c. Pursuant to §63.1505(f)(1) the owner or operator is not required to conduct a performance test to demonstrate compliance with emission standard of paragraph (f) (2) of this section, provided that, on and after the compliance date of this rule, the owner or operator operates and maintains an afterburner with a design residence time of 0.8 seconds or greater and an operating temperature of 1600 degree Fahrenheit or greater.

3. Testing Requirements:

The Permittee shall perform emission testing within 60 days of receipt of a written request from the Division. The testing shall be performed in accordance with the applicable methods referenced in 401 KAR 59:010, Section 4.

4. Specific Monitoring Requirements:

- a. To provide reasonable assurance that the PM and D/F emission limitations are being met, the Permittee shall monitor the monthly amounts and types of process materials added and monthly hours of operation.
- b. Pursuant to §63.1510(g)(3) the owner or operator must conduct an inspection of each afterburner at least once a year and record the results. At a minimum, an inspection must include:
 - i. Inspection of all burners, pilot assemblies, and pilot sensing devices for proper operation and clean pilot sensor;
 - ii. Inspection for proper adjustment of combustion air;
 - iii. Inspection of internal structures (e.g., baffles) to ensure structural integrity.
 - iv. Inspection of dampers, fans, and blowers for proper operation;
 - v. Inspection for proper sealing;
 - vi. Inspection of motors for proper operation;
 - vii. Inspection of combustion chamber refractory lining and clean and replace lining as necessary.
 - viii. Inspection of afterburner shell for corrosion and/or hot spots;

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (continued)

- ix. Documentation, for the burn cycle that follows the inspection, that the afterburner is operating properly and any necessary adjustments have been made; and
 - x. Verification that equipment is maintained in good operating condition.
 - xi. Following an equipment inspection, all necessary repairs must be completed in accordance with the requirements of the OM&M plan.
- c.. Pursuant to 40 CFR 63.1510(g)(1) and (g)(2) the owner or operator of an affected source using an afterburner to comply with the following:
 - i. The owner or operator must install, calibrate, maintain, and operate a device to continuously monitor and record the operating temperature of the afterburner consistent with the requirements for continuous monitoring systems in subpart A of this part.
 - ii. The temperature monitoring device must meet each of these performance and equipment specifications:
 - A. The temperature monitoring device must be installed at the exit of the combustion zone of each afterburner.
 - B. The monitoring system must record the temperature in 15-minute block averages and determine and record the average temperature for each 3-hour block period.
 - C. The recorder response range must include zero and 1.5 times the average temperature established according to the requirements in 40 CFR 63.1512(m).
 - D. The reference method must be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval by the administrator.
- d. Once per week, the permittee shall survey the afterburner stack and maintain a log noting the following information:
 - i. Whether any air emissions were visible from the stack.
 - ii. Whether the visible emissions were normal for the stack.
 - iii. If no visible emissions are observed then no further monitoring is required. If visible emissions are observed, the permittee shall perform a Method 9 reading. The opacity observed shall be recorded in the weekly log. The reading shall be performed by a representative of the permittee certified in Visible Emissions Evaluations. The permittee shall maintain a list of all individuals that are certified Visible Emissions Evaluators and the date of certification.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (continued)

5. Specific Recordkeeping Requirements:

- a. The permittee shall follow recordkeeping requirements specified in 40 CFR 63.1517 (a) and (b)(2),(6), and (14), (6) that apply to D/F emissions from sweat furnace.
- b. See the Specific Monitoring requirements above.

6. Specific Reporting Requirements:

- a. Any exceedance of the opacity, PM emission limitations or D/F compliance parameters as stated in this permit shall be reported to the Division as specified in Section F(6) of this permit.
- b. In addition, reporting requirements specified in 40 CFR 63 Subpart RRR apply to D/F emissions:
 - i. 40 CFR 63.1515 – Notifications:
 - A. 63.1515(a)(1) through (6) – Initial notifications;
 - B. 63.1515(b)(1), (3) through (5), and (9) and (10) – Notification of compliance status report.
 - ii. 40 CFR 63.1516 – Reports:
 - A. 63.1516(a) – Startup, shutdown, and malfunction plan/reports;
 - B. 63.1516(b)(1) and (3) – Excess emissions/summary report;
 - C. 63.1516(c) - Annual compliance certifications.

SECTION C - GENERAL CONDITIONS

A. Administrative Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:040, Section 3(1)(b) and is grounds for enforcement action including but not limited to the termination, revocation and reissuance, or revision of this permit.
2. This permit shall remain in effect for a fixed term of ten (10) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division. [401 KAR 52:040, Section 15]
3. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Material incorporated by reference by 401 KAR 52:040, Section 1a, 11].
4. Pursuant to materials incorporated by reference by 401 KAR 52:040, this permit may be revised, revoked, reopened, reissued, or terminated for cause. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance shall not stay any permit condition [Material incorporated by reference by 401 KAR 52:040, Section 1a, 4,5].
5. This permit does not convey property rights or exclusive privileges [Material incorporated by reference by 401 KAR 52:040, Section 1a, 8].
6. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:040 Section 11(3)].

B. Recordkeeping Requirements

1. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of at least five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [401 KAR 52:040 Section 3(1)(f)].
2. The permittee shall perform compliance certification and recordkeeping sufficient to assure compliance with the terms and conditions of the permit. Documents, including reports, shall be certified by a responsible official pursuant to 401 KAR 52:040, Section 21.

SECTION C - GENERAL CONDITIONS (CONTINUED)**C. Reporting Requirements**

1. a. In accordance with the provisions of 401 KAR 50:055, Section 1, the permittee shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - i. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - ii. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
- b. The permittee shall promptly report deviations from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Reporting Requirement condition 1. a. above), the probable cause of the deviation, and corrective or preventive measures taken; to the Regional Office listed on the front of this permit within 30 days. Other deviations from permit requirements shall be included in the semiannual report [Material incorporated by reference by 401 KAR 52:040, Section 5, 3].
2. The permittee shall furnish information requested by the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the permit [Material incorporated by reference by 401 KAR 52:040, Section 1a, 6].
3. Summary reports of monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation.

The summary reports are due January 30th and July 30th of each year. All deviations from permit requirements shall be clearly identified in the reports. All reports shall be certified by a responsible official pursuant to 401 KAR 52:040, Section 21.

D. Inspections

1. In accordance with the requirements of 401 KAR 52:040, Section 3(1)(f) the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times. Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation.

SECTION C - GENERAL CONDITIONS (CONTINUED)

- b. To access and copy any records required by the permit.
- c. Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit.
- d. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

E. Emergencies/Enforcement Provisions

- 1. The permittee shall not use as defense in an enforcement action, the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Material incorporated by reference by 401 KAR 52:040, Section 1a, 3].
- 2. An emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
 - a. An emergency occurred and the permittee can identify the cause of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
 - d. The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two working days after the time when emission limitations were exceeded due to the emergency and included a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
- 3. Emergency provisions listed in General Condition E.2 are in addition to any emergency or upset provision contained in an applicable requirement [401 KAR 52:040, Section 22(1)].
- 4. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 52:040, Section 22(2)].

F. Compliance

- 1. Periodic testing or instrumental or non-instrumental monitoring, which may consist of record keeping, shall be performed to the extent necessary to yield reliable data for purposes of demonstration of continuing compliance with the conditions of this permit. For the purpose of demonstration of continuing compliance, the following guidelines shall be followed:
 - a. Pursuant to 401 KAR 50:055, General compliance requirements, Section 2(5), all air pollution control equipment and all pollution control measures proposed by the application in response to which this permit is issued shall be in place, properly maintained, and in operation at any time an affected facility for which the equipment and measures are designed is operated, except as provided by 401 KAR 50:055, Section 1.
 - b. All the air pollution control systems shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers. A log shall be kept of all routine and non-routine maintenance performed on each control device.

SECTION C - GENERAL CONDITIONS (CONTINUED)

- c. A log of the monthly raw material consumption and monthly production rates shall be kept available at the facility. Compliance with the emission limits may be demonstrated by computer program, spread sheets, calculations or performance tests as may be specified by the Division [401 KAR 50:055, Section 2].
2. Pursuant to 401 KAR 52:040, Section 19, the permittee shall certify compliance with the terms and conditions contained in this permit by January 30th of each year, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an approved alternative) to the Regional Office listed on the front of this permit in accordance with the following requirements:
 - a. Identification of the term or condition;
 - b. Compliance status of each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent;
 - d. The method used for determining the compliance status for the source, currently and over the reporting period, and
 - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
 - f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications shall be mailed to the following addresses:

Division for Air Quality Owensboro Regional Office 3032 Alvey Park Drive, W. Suite 700 Owensboro, KY 42303-2191	Division for Air Quality Central Files 803 Schenkel Lane Frankfort, KY 40601-1403
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3. Permit Shield - A permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with all:
 - (a) Applicable requirements that are included and specifically identified in this permit; or
 - (b) Non-applicable requirements expressly identified in this permit [401 KAR 52:040, Section 11].

G. Construction Requirements:

1. Pursuant to 401 KAR 52:040, Section 12(3), unless construction is commenced on or before 18 months after the date of issuance of this permit, or if construction is commenced and then stopped for any consecutive period of 18 months or more, or is not completed within a reasonable timeframe, then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon a written request, the Cabinet may extend these time periods if the source shows good cause.
2. Pursuant to 401 KAR 52:040, Section 12(4)(a) and 401 KAR 59:005, General provisions, Section 3(1), within 30 days following construction commencement, within 15 days following start-up and attainment of maximum production rate, or within 15 days following the issuance date of this permit, whichever is later, the owner and/or operator of the affected facilities specified on this permit shall furnish to the Regional Office listed on the front of this permit,

SECTION C - GENERAL CONDITIONS (CONTINUED)

with a copy to the Division's Frankfort Central Office, the following:

- a. Date when construction commenced, (See General Condition G.1).
 - b. Start-up date of each of the affected facilities listed on this permit.
 - c. Date when maximum production rate was achieved, (See General Condition G.3.b).
3.
 - a. Pursuant to 401 KAR 59:005, General provisions, Section 2(1), this permit shall allow operation for performance testing of the affected facilities listed herein (afterburner inspection and temperature monitoring device performance specification requirements pursuant to 40 CFR 63, Subpart RRR; also listed in Section B of this permit). However, within 60 days after the issuance date of this permit or the date of achieving the maximum production rate at which the affected facilities will be operated, whichever is later, but no later than 180 days after initial start-up of such facilities, or the issuance date of this permit, whichever is later, the owner or operator shall conduct performance tests on the Particulate matter emission and furnish the Division's Frankfort office a written report of the results of such performance tests.
 - b. Pursuant to 401 KAR 59:005, General provisions, Section 3(1)(b), unless notification and justification to the contrary are received by this Division, the date of achieving the maximum production rate at which the affected facilities will be operated shall be deemed to be 30 days after initial start-up.
 - c. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least Thirty (30) days prior to the test.
 - d. Pursuant to 401 KAR 50:045 Section 5 in order to demonstrate that a source is capable of complying with a standard at all times, a performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.
4. Operation of the affected facilities authorized by this permit shall not commence until compliance with applicable standards specified herein has been demonstrated in accordance with the requirements of 401 KAR 52:040, Section 12(4)(b). Until compliance is demonstrated, the source may only operate for the purpose of demonstrating compliance.

SECTION D - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:040, Section 6. While these activities are designated as insignificant the Permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

<u>Description</u>	<u>Generally Applicable Regulation</u>
1. Haul roadways and vehicular traffic	401 KAR 63:010
2. Dross Cooling	401 KAR 59:010
3. Scrap metal storage area	401 KAR 59:010